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SUMMARY

Giulia Sofia is a Post-Doctoral Research Associate at the Department of Land, Environment, Agriculture and Forestry-University of Padova (Italy). She received a B.S. and M.S. in Forestry Science, and a Ph.D. (2012) in Water Resources, Soil Conservation & Watershed Management from the University of Padova (Italy). Her research area is mainly geomorphology, with a particular emphasis on Digital Terrain Analysis based on high-resolution topography. Recently, her research focus has been on anthropogenic landscapes, and the related human-induced processes. Dr Sofia focusses on watershed hydrology in agricultural and forested landscapes; hydrological modeling of infiltration processes; statistical analysis of floods and rainfall distribution; remote sensing technologies (laser scanner -LIDAR, and photogrammetry -Structure from motion) for the reconstruction of digital elevation models (ground and surface); analysis, creation, organization, and integration of cartographic data and resources in GIS environments (open sources or commercial); development of algorithms in advanced scientific environments (Python / Matlab). She authored/co-authored 26 papers published and in press in international peer reviewed journals. She is the main Editor of the Special Issue "Frontiers in Geomorphometry" in the journal *Earth Surface Dynamics* (Copernicus), and she serves as a reviewer in journals such as *Advance in Water Resources* (Elsevier), *International Journal of Geographic Information Science* (Taylor & Francis), *Earth Surface Dynamics* (Copernicus), *Hydrology and Earth System Sciences* (Copernicus), *Natural Hazards and Earth System Sciences* (Copernicus), *Heliyon* (Elsevier), *International Journal of Environmental Research and Public Health* (Taylor & Francis), *International Journal of Remote Sensing* (Taylor & Francis), *Remote Sensing* (MDPI). She was selected to review international projects for the COST (European Cooperation in Science and Technology) and the U.S. National Science Foundation (NSF).

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EDUCATION

- 2012 **Ph.D.** Water Resources, Soil Conservation & Watershed Management- University of Padova, Italy
 2008 **M.Sc.** Forestry and Environmental Science- University of Padova, Italy
 2006 **B.Sc.** Forestry and Environmental Technology- University of Padova, Italy

PROFESSIONAL COURSES

1. GIS Terrain Analysis for hydrogeomorphic applications, Polytechnic Institute of NYU, New York (USA), 2008
2. Modellazione Idrologica con HEC-HMS, Interdepartmental Research Center of GEOMATICS, Padova-Italy, 2009
3. Modellazione Idrologica con HEC-RAS", Interdepartmental Research Center of GEOMATICS, Padova-Italy, 2009
4. Gestione ed elaborazione dei dati da rilievo laser scanner, Interdepartmental Research Center of GEOMATICS, Padova-Italy, 2009
5. Analisi GIS avanzata: Geoprocessing e analisi raster, Interdepartmental Research Center of GEOMATICS, Padova-Italy 2009
6. Univariate geostatistics, Dipartimento TeSAF (Università degli Studi di Padova), 2014

POSITIONS

- 2012-present **Research associate:** Department LEAF, University of Padova
 2008-2011 **Ph.D. Candidate:** Department LEAF, University of Padova
 2008 **Visiting student:** Polytechnic institute of New York, New York, USA

EXTERNAL POSITIONS, LEADERSHIP & COMMISSION OF TRUST

- 2016 **Reviewer NSF** (U.S. National Science Foundation)
 2014 **Review panel member:** COST (European Cooperation in Science and Technology) actions for the Earth System Science and Environmental Management (ESSEM) section.

FELLOWSHIP/HONORS/AWARDS

- 2008 **H2CU (Honors Center of Italian University) grant:** Visiting Student at the Polytechnic institute of New York, New York, USA

CO-SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Master's students

Francesca Breda (2017), University of Padova; Federica Basso (2017), University of Padova; Anton Pijl (2016), Wageningen university; Giulia Lo Re (2016), University of Padova; Massimo Prosdocimi (2013), University of Padova.

TEACHING

2015-	<u>Introduction to Interactive Programming in Python</u> , PhD program LEHR, University of Padova
2015-	<u>Teaching assistant in Gis applications in Agriculture</u> , University of Padova
2014	<u>Teaching assistant at NCKU-UNIPD (Italy-Taiwan) Joint Summer School 2014</u> , University of Padova
2013-	<u>Teaching assistant Integrated Watershed Management</u> , MEDfOR - Erasmus Mundus MSc in Mediterranean Forestry and Natural Resources Management, University of Padova
2013	<u>Teaching assistant at EGU Summer School 2013</u> , University of Padova
2012-	<u>ArcGIS 10.x base class (University of Padova)</u> .
2011	<u>Calcolo di parametri morfometrici ed estrazione di features idrogeomorfiche con Matlab in Geomorphometry: Analisi quantitativa della superficie terrestre (24 hr)</u> . Centro Interdipartimentale di ricerca di Geomatica (CIRGEO), University of Padova
2011	<u>Teaching assistant in Idrologia e Sistemazioni Idraulico-Forestali</u> . University of Padova

ORGANIZATION OF SCIENTIFIC MEETINGS

2017	Convener & Chairperson: session GM3.1 <i>Frontiers in Geomorphometry and Earth Surface Dynamics: Possibilities, Limitations and Perspectives</i> (EGU General Assembly)
2016	Convener & Chairperson: session GM2.1 <i>Frontiers in Geomorphometry and Earth Surface Dynamics: Possibilities, Limitations and Perspectives</i> (EGU General Assembly)
2015	Convener & Chairperson: session GM2.1 <i>Frontiers in Geomorphometry and Earth Surface Dynamics: Possibilities, Limitations and Perspectives</i> (EGU General Assembly)

EDITORIAL POSITIONS

2016–	Guest Editor: <i>ISPRS International Journal of Geo-Information</i> (MDPI), Special Issue “Advances in Digital Terrain Analysis and Modelling” (in preparation)
2015–	Guest Editor: <i>Earth Surface Dynamics</i> (Copernicus), Special Issue “Frontiers in Geomorphometry”

SERVICE ACTIVITY

2014–	Reviewer (journals): <i>Advance in Water Resources</i> , <i>International Journal of Geographic Information Science</i> , <i>Natural Hazards and Earth System Sciences</i> , <i>Heliyon</i> , <i>International Journal of Environmental Research and Public Health</i> , <i>Entropy</i> , <i>Progress in Physical geography</i> , <i>Remote Sensing</i> .
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MEMBERSHIP OF SCIENTIFIC SOCIETIES

2011–	European Geosciences Union
2013–	American Geophysical Union

SCIENTIFIC NETWORK

Paolo Tarolli, University of Padova
 Federico Cazorzi, University of Udine
 Federico Preti, University of Florence
 Giancarlo Dalla Fontana, University of Padova
 Jean-Stéphane Bailly, AgroParisTech in Montpellier
 John Hillier, Loughborough University
 Susan Conway, The Open University
 Kang Yang, University of California

PUBLICATIONS

Papers under review or in preparation

1. Roder, G., **Sofia, G.**, Zhifeng, W., G., Tarolli, P., (in revisione) Assessment of social vulnerability to floods in the floodplain of northern Italy. *Weather, Climate and Society*.
2. Tarolli, P., **Sofia, G.**, Prosdocimi, M., (in revisione) Hillslope Processes in Terraced Agricultural Landscapes. *Anthropocene*.

Peer-reviewed Journals

2017

1. **Sofia, G.**, Di Stefano, C., Ferro, V., Tarolli, P., (2017) Morphological Similarity of channels: from linear erosional features (Rill, Gully) to Alpine rivers. *Land Degradation & Development*, doi: 10.1002/ldr.2703.
2. **Sofia, G.**, Masin, R., Tarolli, P. (2017) Prospects for crowdsourced information on the geomorphic 'engineering' by the invasive Coypu (*Myocastor coypus*). *Earth Surface Processes and Landform*, 42, 365–377, doi:10.1002/esp.4081
3. **Sofia, G.**, Roder, G., Dalla Fontana, G., Tarolli, P., (2017) Flood dynamics in urbanised landscapes: 100 years of climate and humans' interaction, *Scientific Reports*, 7, doi:10.1038/srep40527
4. **Sofia, G.**, Tarolli, P., (2017). Hydrological Response to ~30 years of Agricultural Surface Water Management, *Land*, 6(1), doi: 10.3390/land6010003
5. Tarolli, P., **Sofia, G.**, Ellis, E. (2017), Mapping the topographic fingerprints of humanity across Earth, *Eos*, 98, <https://doi.org/10.1029/2017EO069637>.
6. Prosdocimi, M., Burguet, M., Di Prima, S., **Sofia, G.**, Cerdà, A., Esparzad E.T., Comino, J.R., Tarolli, P., (2017) Rainfall simulation and Structure-from-Motion photogrammetry for the analysis of soil water erosion in Mediterranean vineyards *Science of the Total Environment*, 574, 204-215, doi: 10.1016/j.scitotenv.2016.09.036
7. **Sofia, G.**, Hillier, J. K., and Conway, S. J. (2016). Frontiers in Geomorphometry and Earth Surface Dynamics: Possibilities, Limitations and Perspectives, *Earth Surf. Dynam.*, 4, 721-725, 2016, doi: 10.5194/esurf-4-721-2016 ([Review Article](#))
8. **Sofia, G.**, Tarolli, P., (2016). Automatic detection of roads under forest cover: advances in the analysis of roads and geomorphic process interaction. *Rendiconti Online della Società Geologica Italiana*, 39, 23-26, doi: 10.3301/ROL.2016.38
9. **Sofia, G.**, Bailly, J., Chehata, N., Tarolli, P., Levavesseur, F., (2016). Comparison of Pleiades and LiDAR Digital Elevation Models for terraces detection in farmlands. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 9(4), 1567 - 1576. doi:10.1109/JSTARS.2016.2516900
10. Tarolli, P., **Sofia, G.** (2016). Human topographic signatures and derived geomorphic processes across landscapes, *Geomorphology*, 255, 140–161, 10.1016/j.geomorph.2015.12.007. ([Invited Review Article](#))
11. Mutzner, R., Tarolli, P., **Sofia, G.**, Parlange, M.B., Rinaldo, A. (2016). Field study on drainage densities and rescaled width functions in a high-altitude alpine catchment. *Hydrological Processes*, 30: 2138–2152. doi: 10.1002/hyp.10783

2015

12. Hillier, J, **Sofia, G.**, Conway, S. (2015). Perspective – Synthetic DEMs: A vital underpinning for the quantitative future of landform analysis? *Earth Surface Dynamics*, 3, 587-598, 2015, doi:10.5194/esurf-3-587-2015 ([Review Article](#))
13. **Sofia, G.**, Marinello, F., Tarolli, P. (2015). Metrics for quantifying anthropogenic impacts on geomorphology: road networks, *Earth Surface Processes and Landforms*, 41: 240–255, doi: 10.1002/esp.3842
14. **Sofia, G.**, Tarolli, P., Carzori, F., Dalla Fontana, G., (2015). Downstream hydraulic geometry relationships: gathering reference reach-scale width values from LiDAR, *Geomorphology*, 250, 236-248, doi:10.1016/j.geomorph.2015.09.002.
15. Prosdocimi, M., **Sofia, G.**, Dalla Fontana, G., Tarolli, P. (2015). Bank erosion in agricultural drainage networks: effectiveness of Structure-from-Motion photogrammetry for post-event analysis, *Earth Surface Processes and Landforms*, 40: 1891–1906. doi: 10.1002/esp.3767.
16. Chen, J., Li, L., Chang, K., **Sofia, G.**, Tarolli, P., (2015). Open-pit mining geomorphic feature characterization. *International Journal of Applied Earth Observation and Geoinformation*, 42, 76-86, <http://dx.doi.org/10.1016/j.jag.2015.05.001>.
17. Tarolli, P., **Sofia, G.**, Calligaro, S., Prosdocimi, M., Preti, F., Dalla Fontana, G. (2015). Vineyards in terraced landscapes: new opportunities from lidar data, *Land Degradation & Development*, 26, 92–102, doi:10.1002/ldr.2311.

2014

18. Li, K., Chen, J., Tarolli, P., **Sofia, G.**, Feng, Z., Li, J. (2014). Geomorphometric multi-scale analysis for the automatic detection of linear structures on the lunar surface, *Earth Science Frontiers*, 21(6), 212-222, ISSN: 1005-2321, doi:10.13745/j.esf.2014.06.021. (in chinese)
19. **Sofia, G.**, Marinello, F., Tarolli, P. (2014). A new landscape metric for the identification of terraced sites: the Slope Local Length of Auto-Correlation (SLLAC), *ISPRS Journal of Photogrammetry and Remote Sensing*, 96, 123-133, ISSN: 0924-2716, doi:10.1016/j.isprsjprs.2014.06.018.
20. **Sofia, G.**, Prosdocimi, M., Dalla Fontana, G., Tarolli, P. (2014). Modification of artificial drainage networks during the past half-century: Evidence and effects in a reclamation area in the Veneto floodplain (Italy) *Anthropocene*, 6, 48-62, ISSN: 2213-3054, doi:10.1016/j.ancene.2014.06.005.
21. **Sofia, G.**, Dalla Fontana, G., Tarolli, P. (2014). High-resolution topography and anthropogenic feature extraction: testing geomorphometric parameters in floodplains, *Hydrological Processes*, 28, 2046-2061, ISSN: 0885-6087, doi:10.1002/hyp.9727.

2013

22. **Sofia, G.**, Pirotti, F., Tarolli, P. (2013). Variations in multiscale curvature distribution and signatures of LiDAR DTMs errors, *Earth Surface Processes and Landforms*, 38(10), 1116–1134, ISSN: 1096-9837, doi:10.1002/esp.3363.
23. Calligaro, S., **Sofia, G.**, Prosdocimi, M., Dalla Fontana, G., Tarolli, P. (2013). Terrestrial Laser Scanner data to support coastal erosion analysis: the Conero case study, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XL-5/W3, 125-129, doi:10.5194/isprsjprs-XL-5-W3-125-2013.
24. Carzori, F., Dalla Fontana, G., De Luca, A., **Sofia, G.**, Tarolli, P. (2013). Drainage network detection and assessment of network storage capacity in agrarian landscape. *Hydrological Processes*, 27(4), 541-553, ISSN: 0885-6087, doi:10.1002/hyp.9224.

2012

25. Tarolli, P., **Sofia, G.**, Dalla Fontana, G. (2012). Geomorphic features extraction from high-resolution topography: landslide crowns and bank erosion, *Natural Hazards*, 61, 65-83, ISSN: 0921-030X, doi:10.1007/s11069-010-9695-2.

2011

26. **Sofia, G.**, Tarolli, P., Carzori, F., Dalla Fontana, G. (2011). An objective approach for feature extraction: distribution analysis and statistical descriptors for scale choice and channel network identification, *Hydrological Earth Syst. Sci.*, 15, 1387-1402, ISSN: 1027-5606, doi:10.5194/hess-15-1387-2011.

Proceedings

1. **Sofia, G.**, Tarolli, P., Cazorzi, F., De Luca, A., Dalla Fontana, G. (2012). Il reticolo di drenaggio minore: caratterizzazione a larga scala di densità di drenaggio e capacità di invaso. XXXIII Italian Conference of Hydraulics and Hydraulic Constructions, p. 160, Cosenza: EdiBios, ISBN: 978-88-97181-18-7.
2. **Sofia, G.**, Cazorzi, F., De Luca, A., Dalla Fontana, G., Tarolli, P. (2011). Drainage network detection and quantification of water storage capacity within drainage channels in alluvial plains through LiDAR derived DTMs. *Epitome*, 4, ISSN: 1972-1552, doi: 10.1474/Epitome.04.0925.Geoitalia2011.
3. Cazorzi, F., Dalla Fontana, G., De Luca, A., **Sofia, G.**, Tarolli, P. (2011). Individuazione e caratterizzazione del reticolo idrografico minore in ambiente agrario. In: AA.VV.. Gestione e controllo dei sistemi agrari e forestali - Memorie. Belgirate, Associazione Italiana di Ingegneria Agraria, ISBN: 9788890627330.

CONFERENCE PRESENTATIONS

Talks

1. **Sofia, G.**, Roder, G., Tarolli, P., (2016) Land-use, climate and floods dynamics in Northeastern Italy (Veneto). *Geophysical Research Abstracts*, 18, EGU2016-6520-1, eISSN: 1607-7962. [Wien]
2. **Sofia, G.**, Tarolli, P., (2016) Smartphone imagery to analyze animal-induced erosion in riverbanks. *Geophysical Research Abstracts*, 18, EGU2016-12291-1, eISSN: 1607-7962. [Wien]
3. **Sofia, G.**, Tarolli, P., (2015) Automatic detection of roads under forest cover. *X Convegno GIT – Società Geologica Italiana* [S. Leo ,RN]
4. **Sofia, G.**, Tarolli, P., (2015) Geomorphology of anthropogenic landscapes. *Geophysical Research Abstracts*, 17, EGU2015-3372, eISSN: 1607-7962. [Wien]
5. Prosdocimi, M., Calligaro, S., **Sofia, G.**, Tarolli, P., (2015) Erosion processes by water in agricultural landscapes: a low-cost methodology for post-event analyses. *Geophysical Research Abstracts*, 17, EGU2015-948, eISSN: 1607-7962. [Wien]
6. Tarolli P., **Sofia, G.**, (2014). The topographic signature of anthropogenic geomorphic processes. Fall Meet. Suppl., Abstract EP43E-07. [San Francisco]
7. **Sofia, G.**, Marinello, F., Tarolli, P. (2014). Exploring the spatial heterogeneity of terraced landscapes using LiDAR: the Slope Local Length of Auto-Correlation (SLLAC). *Geophysical Research Abstracts*, 16, EGU2014-5790, eISSN: 1607-7962. [Wien]
8. Prosdocimi, M., **Sofia, G.**, Dalla Fontana, G., Tarolli, P. (2013). Land use change in the Veneto floodplain and consequences on minor network drainage system. *AIIA 2013 (X Conference of the Italian Society of Agricultural Engineering)*. [Viterbo]
9. Tarolli, P., **Sofia, G.**, Marinello, F. (2013). The topographic signature of man. *BSG2013 Annual Conference*, Royal Holloway, University of London. [London]
10. **Sofia, G.**, Tarolli, P., Cazorzi, F., Dalla Fontana, G. (2013). Automatic measurement of bankfull widths from high resolution LiDAR DTMs: a new tool to analyze the link between hydraulic and morphological variables. *Geophysical Research Abstracts*, 15, EGU2013-5494, eISSN: 1607-7962. [Wien]
11. Prosdocimi, M., **Sofia, G.**, Dalla Fontana, G., Tarolli, P. (2013). Land use change in the last century in the Veneto floodplain: effects on network drainage density, water storage, and related consequences on flood risk. *Geophysical Research Abstracts*, 15, EGU2013-4842, eISSN: 1607-7962. [Wien]
12. **Sofia, G.**, Dalla Fontana, G., Tarolli, P. (2012). LiDAR and Geomorphic Parameters for Anthropogenic Feature Extraction in Floodplains. Abstract IWG04-D5-AM2-Leo3-003 (IWG04-A007) presented at AOGS – AGU (WPGM) Joint Assembly 2012. [Singapore]
13. Tarolli, P., **Sofia, G.**, Dalla Fontana, G. (2012). Opportunities and challenges from high resolution topography for understanding earth surface processes. *BSG2012 Annual Conference 2012*, University of Nottingham. [Nottingham]
14. **Sofia, G.**, Cazorzi, F., De Luca, A., Dalla Fontana, G., Tarolli, P. (2011). Drainage network detection and quantification of water storage capacity within drainage channels in alluvial plains through LiDAR derived DTMs. *Geoitalia 2011* (VIII Italian Forum of Earth Sciences). [Torino]
15. **Sofia, G.**, Tarolli, P., Cazorzi, F., Dalla Fontana, G. (2011). Channel network identification from high-resolution DTMs: a statistical approach. *Geophysical Research Abstracts*, 13, EGU2011-2980, eISSN: 1607-7962. [Wien]
16. Tarolli, P., **Sofia, G.**, Pirotti, F., Dalla Fontana, G. (2010). Semi-automatic methods for landslide features and channel network extraction in a complex mountainous terrain: new opportunities but also challenges from

high resolution topography. *Geophysical Research Abstracts*, 12, EGU2010-15176, eISSN: 1607-7962. [Wien]

Poster

1. Roder, G, **Sofia, G.**, Wu, Z, Tarolli, P. (2017) Social vulnerability in the flood-prone anthropogenic landscape of Northern Italy, *Geophysical Research Abstracts*, 19, EGU2017-1262-1, eISSN: 1607-7962. [Wien] [PICO](#)
2. Pijl, A., Brauer, C., **Sofia, G.**, Teuling, R., Tarolli, P. (2017) Hydrological Assessment of Model Performance and Scenario Analyses of Land Use Change and Climate Change in lowlands of Veneto Region (Italy) *Geophysical Research Abstracts*, 19, EGU2017-1464-1 [Wien] [PICO](#)
3. **Sofia, G.**, Pizzulli, F., Tarolli, P., (2017) Humans reclaimed lands in NorthEastern Italy and artificial drainage networks: effects of ~30 years of Agricultural Surface Water Management, *Geophysical Research Abstracts*, 19, EGU2017-7942-3 [Wien] [PICO](#)
4. Xiang, J., Chen, J., **Sofia, G.**, Lai, Z., Huang, H., Tarolli, P., (2017) Monitoring of Open-pit mining using geomorphometry and Unmanned Aerial Vehicles (UAVs), *Geophysical Research Abstracts*, 19, EGU2017-13593 [Wien] [PICO](#)
5. Tarolli, P., Fuller, I.C., Basso, F., Cavalli, M., **Sofia, G.**, (2017) Hydro-geomorphic connectivity and landslide features extraction to identifying potential threats and hazardous areas, *Geophysical Research Abstracts*, 19, EGU2017-17143-1 [Wien] [PICO](#)
6. Lo Re, G., Fuller, I.C., **Sofia, G.**, Holt, K., Macklin, M., Tarolli, P., (2016) High-resolution topography for the analysis of palaeochannels in the Manawatu river (New Zealand). *Geophysical Research Abstracts*, 18, EGU2016-14562, eISSN: 1607-7962. [Wien] [PICO](#)
7. Tarolli, P., **Sofia, G.**, (2016) Anthropogenic features and hillslope processes interaction. *Geophysical Research Abstracts*, 18, EGU2016-12102, eISSN: 1607-7962. [Wien] [PICO](#)
8. Chen, J., Li, K., **Sofia, G.**, Tarolli, P. (2015) Analysis of open-pit mines using high-resolution topography from UAV. *Geophysical Research Abstracts*, 17, EGU2015-4572, eISSN: 1607-7962. [Wien] [PICO](#)
9. Hillier, J., **Sofia, G.**, Conway, S., (2015) Perspective- Synthetic DEMs: A vital underpinning for the quantitative future of landform analysis?. *Geophysical Research Abstracts*, 17, EGU2015-1593, eISSN: 1607-7962. [Wien] [PICO](#)
10. Tarolli, P., Prosdocimi, M., **Sofia, G.**, Dalla Fontana, G., (2015) Smartphones for post-event analysis: a low-cost and easily accessible approach for mapping natural hazards. *Geophysical Research Abstracts*, 17, EGU2015-12550, eISSN: 1607-7962. [Wien] [PICO](#)
11. Bailly, J., Sofia, G., Chehata, N., Tarolli, P., Levavesseur, F., (2015). Farmland terrace slope detection from Pleiades digital elevation models. *Geophysical Research Abstracts*, 17, EGU2015-10021, eISSN: 1607-7962 [Wien]
12. **Sofia, G.**, Prosdocimi M., Dalla Fontana, G., Tarolli P. (2014). Recent Changes in Floodplain Urban Development and in Intense Rainfall Patterns: Evidence and Effects for the Reclamation Network in North-Eastern Italy. Fall Meet. Suppl., Abstract H51H-0713. [San Francisco]
13. Prosdocimi M., **Sofia, G.**, Preti F., Dalla Fontana, G., Tarolli P. (2014). Relative Path Impact Index (RPII): a morphometric approach to quantify the effect of anthropogenic features on surface flow processes in agricultural landscapes. Fall Meet. Suppl., Abstract EP53A-35090. [San Francisco]
14. Li, K., Chen, J., **Sofia, G.**, Tarolli, P. (2014) Geomorphometric multi-scale analysis for the recognition of Moon surface features using multi-resolution DTMs. *Geophysical Research Abstracts*, 16, EGU2014-6687, eISSN: 1607-7962. [Wien] [PICO](#)
15. Tarolli, P., **Sofia, G.**, Calligaro, S., Prosdocimi, M., Preti, F., Dalla Fontana, G. (2014). Erosion in vineyards and LiDAR: new opportunities for anthropogenic terraced landscapes. *Geophysical Research Abstracts*, 16, EGU2014-5939, eISSN: 1607-7962. [Wien]
16. Calligaro, S., **Sofia, G.**, Guarnieri, A., Tarolli, P. (2013). LIDAR data to support coastal erosion analysis: the Conero study case. *Geophysical Research Abstracts*, 15, EGU2013-5393, eISSN: 1607-7962. [Wien] [PICO](#)
17. **Sofia, G.**, Tarolli, P., Cazorzi, F., De Luca, A., Dalla Fontana, G. (2012). Il reticolo di drenaggio minore: caratterizzazione a larga scala di densità di drenaggio e capacità di invaso. XXXIII Italian Conference of Hydraulics and Hydraulic Constructions. [Brescia]
18. **Sofia, G.**, Tarolli, P., Dalla Fontana, G. (2012). LiDAR DTMs and anthropogenic feature extraction: testing the feasibility of geomorphometric parameters in floodplains". *Geophysical Research Abstracts*, 14, EGU2012-4114-2, eISSN: 1607-7962. [Wien]
19. Cazorzi, F., Tarolli, P., **Sofia, G.**, De Luca, A., Dalla Fontana, G. (2011). Surface water storage in alluvial and urbanized plains: the effectiveness of high resolution topography. *Geophysical Research Abstracts*, 13, EGU2011-3804, eISSN: 1607-7962. [Wien]

20. Tarolli, P., **Sofia, G.**, Dalla Fontana, G. (2009). Semi-automatic methodologies for landslide features extraction: new opportunities but also challenges from high resolution topography. Fall Meet. Suppl., Abstract NH41C-1263. [San Francisco].

Legnaro (PD), 10 March 2017



Giulia Sofia